

Understanding the Significance of the
Individual Letters of the Alphabet in
Developing Full Literacy

Raymond E. Laurita

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Understanding the Significance of the Individual Letters of the Alphabet in Developing Full Literacy

There has been considerable confusion concerning the absolute need for full facility of recognition of this individual letters of the alphabet prior to the introduction of complex word forms during the initial stages of reading and writing instruction. The role of the alphabet and its relationship to its precursor speech sounds is discussed fully. Included also is a full discussion of some of the complexities involved as speech is transferred to its print form, especially those involving spatial orientation, sequence, ambiguity of interpretation, and the damage resulting from the introduction of abstract grammatic-syntactic signalers (was, his, once, of, and, where, etc.) prior to the establishment of secure perceptual readiness in the developing learner.

To grasp how English is translated from the spoken medium into the printed medium, requires a clear understanding of the complex role of the individual and unique graphic components of the alphabet. Through the aegis of this remarkably malleable framework of twenty-six vowel and consonant letters, speakers of the language can learn to read and express any thought or idea possible of conception, as internalized oral symbols are translated into externalized graphic form. What has been poorly understood is the complexity and abstraction of this transfer. It is a transfer based upon the presence within the alphabet of a clearly identifiable and precisely quantifiable hierarchy of letter and word structure, one which will eventually grow to encompass the entire English language, as reciprocity of processing proficiency in both media matures.

Those who develop the ability, from the outset of exposure to printed language, to perceive the structural principles governing the increasingly sophisticated combinations possible of construction from these individual letter components, are those who learn to decode and encode with joy and facility. Those whose development is disrupted during this crucial period of perceptual growth, for any of a myriad of underlying causations, are those who may display the effects of such interruption for a lifetime.

Prerequisite for operating within the graphic language milieu involves a recognition of the two distinct classes of letter elements comprising the whole of the alphabetic hierarchy, that is, the vowel and the consonant. That such understanding may be internalized unconsciously is clear from the evidence supplied by facile child readers and spellers, who demonstrate complex decoding and encoding facility in the absence of prolonged or systematic instruction. (2) From the outset, the letters of the alphabet must be understood as being graphic and external representations of the sounds able to be produced on the oral level of symbolic function, despite the fact that the individual relationships existing between the two media are no longer totally and unitarily reciprocal. Any other perception of alphabetic symbols, changes the nature of the transfer from one based upon the precise sound to symbol associations represented by the specific word sequences, to one based upon a form of global transfer resembling that which occurs in translations of picto-

graphs or ideographs, where meaning associations are based upon a direct, and usually concrete, connection between the external symbol as a totality and the internalized idea represented by such symbols. In short, the sounds represented by the sequence of letters s-u-n, cannot, in any manner, be construed as resembling the object “sun.” Rather, they represent a totality of sounds associated with the spoken word sun, a connection which in turn “stands for” a meaning association made earlier, through the aegis of the oral-aural medium and the concrete reality of the sun itself.

There are at present twenty-six letters in the English alphabet to represent the approximately forty four sounds comprising the oral repertoire of the normal English speaker. This discrepancy underlies virtually all of the confusion associated with the problems surrounding the development of secure reading and writing skills. Paradoxically, it is this same apparent inconsistency which simultaneously permits the observable breadth of graphic latitude evident within the English graphic system. It allows for ever greater structural flexibility of externalized expression in complex polysyllables which are able to retain their essential meaning relationships with simple root structures *only as the result of the continued graphic presence of the original sequence of letters containing that primary root meaning association.*

For example, the roots *late* (carried), *side* (sit), *ject* (throw), and *sign* (sign), are derived from Latin roots having clear meaning associations within the complex word forms in which they appear at the polysyllabic level. Likewise, their speech to print representations as stable graphic structures at the root level are also based upon equally secure translational procedures, relationships which allow them to be easily pronounced by speakers and readers of English. Once these sequences of letter elements have been perceived accurately and committed to the symbolic memory for immediate retrieval, they remain immediately recognizable, even when the initial root sound associations are distorted as a result of the pressures caused by more sophisticated speech production, as in *late*: relate, prelate, relative, relational, dilatory, etc.; *side*: reside, residue, presidency, presidio, etc.; *ject*: reject, injection, conjectural, etc.; *sign*: signal, significance, design, assignation, consignee, etc.

The basis for the hierarchic distinction existing in graphic symbolic representation derives initially from its inherent association with sound sequential speech production per se. At both levels, it is clear that the vowel is the preeminent hierarchic element upon which all word construction is based. Its role in externalized graphic structure is simply an extension of its precursor role, developed during the maturation of speech. It stems originally from those elemental forces which shaped man’s sound production apparatus into the form it assumed many hundreds, perhaps thousands, of generations ago. Today, that same developmental hierarchy of oral expressive development is observable in the spontaneous, and perhaps arguably by now, programmed ability of the human infant to produce sounds from the moment of birth, sounds which are from their outset clearly identifiable as sounds referred to later as vowels. (14)

By their very nature, vowel sounds require the least degree of complexity in their production, as air is spontaneously released under pressure from the lungs and finds its way through the throat and mouth for externalization. Minute changes in the position of the lips and tongue during cooing, gurgling, crying, laughing, etc., create distinctly different variations in the vowel sounds emanating from the infant speech apparatus. There is, initially no sensory-motor substrate underlying the complex interaction of lung, throat, tongue and lips required for the consistent production of even the simplest combination of vowel and consonant heard when the infant utters such sequences of sounds as *mah*, *dah*, and *bah*. Such consistency would necessarily be

predicated upon the prior existence of an already well-established network of internal neural receptors and transmitters to underlie anything other than chance externalization.

The capacity to eventually associate the ideas accompanying the complex ideas which these combined sound sequences come to represent, that is, mah-mother, dab-father, and bah-bottle, signals the invention of human speech in the child. This primitive associational ability results from conditioning activity growing out of intense stimulus-response activity occurring during interaction with parents and other significant adults in the child's environment, interaction which Lenneberg referred to as "simple immersion in a sea of language." (1) Once the infant establishes the ability to consistently reproduce individual sounds in the form of specific sequences and associate these sequences with objects in his environment, single word utterances will gradually be enlarged to include, first, phrases, then sentences, and finally, the full range of complex speech available to the maturing human child.

Having reached this level of symbolic development by about age three, each human child is in possession of the latent potential to evolve the full symbolic capacity which is later mirrored in the complex, and largely unconscious, semantic: grammatic-syntactic miracle observable in mature and fluent speech and writing.

This same hierarchy of maturation foreshadowed in the development of speech, can be observed in the evolving expressive ability of the child, as skill with the print medium is developed. From its inception, as a separate but reciprocating medium, it evolves from an initial one-to-one sound to symbol transfer of association, to those involving groups of elements constructed around vowel elements. It is a universal maxim, at both levels of symbolic expression, that a word or syllable cannot be produced in English without the inclusion of a vowel element. The resulting sequences may run the gamut of complexity initiated by words having but a single vowel element in their make-up, as in *i* and *a*, to those immensely complex sequences of vowels and consonants comprising such words as *deinstitutionalization* and *interrogatories*.

The entire instructional rationale underlying the implied ability of the immature child to make the transfer from speech to print at the time of his initial exposure to the printed word, rests upon the presumption that that child possesses the ability to clearly and consistently recognize and represent the individual components of the alphabet. Success in the transfer process is equally based upon a presumed level of facility with the new print medium, equivalent to that possessed during the initial stages of speech production, when the infant was lovingly immersed in a "sea of language," and spontaneously produced sounds were associated with concrete objects in the environment. That such an instructional rationale was, and continues to be, grossly misunderstood and based upon inadequate information about the initial perceptual act with regard to abstract printed symbols, is an understatement.

What needs to be understood is that, just as the child who has difficulty in hearing or producing speech sounds clearly and accurately during the period of aural-oral development can be expected to experience related problems in establishing clear and consistently accurate speech, so also will the child who experiences difficulty in consistently recognizing and representing the individual letters of the alphabet experience related problems in the development of decoding and encoding skill with whole strings of letter elements in the form of words, phrases and sentences. The absolute need to develop clear and consistent facility with the individual components of the alphabet before children are exposed to more complex sequences of these letters during initial instruction in reading and writing, has been inadequately dealt with; even trivialized, by those responsible for the instruction of immature infants.

Further evidence of confusion concerning the prime significance and hierarchic character of the print medium, and of an absolute need for clear individual letter recognition from the outset of instruction, is ample. It becomes obvious in any examination of long held beliefs, concerning the types of words children are supposedly able to perceive and commit to memory for internalization during the early stages of reading and writing instruction. Instead of conditioning children from the outset to deal with sequences of letters comprising words having the most consistent sound to symbol translational characteristics, and those able to be closely associated with concrete reality most readily, programs of instruction have persisted in initially emphasizing the most idiosyncratic examples of speech to print transformations. Introduced initially are words having no clear meaning other than as signallers of grammatic or syntactic function. Words such as *are, was, were, she, where, out, of, once,* etc.) have no exact concrete reference and serve only as abstract cuing mechanisms in determining tense, person, number, place, gender, etc.

Instead of aiding children to perceive and respond to that which is structurally regular and semantically concrete, most introductory systems literally by-pass whole developmental stages of structural and semantic logic in their haste to force infants into establishing a cadre of learned whole word units, those presumed to assist the learner in profiting from the contextual clues provided by such sophisticated linguistic abstractions.

The apparent underlying rationale for such a belief was the view that such prerequisite knowledge would facilitate the associative process operating in the full and facile transfer of word usage and meaning. The belief that immature infants could, in fact, perform such complex sensory-motor, perceptual and conceptual activity at the symbolic level of transfer, was based upon minimal and inconclusive research performed in the late 1800's by Cattell and later by Erdmann and Dodge (12), research using perceptually mature subjects. The effects of this early work upon the development of virtually all subsequent initial reading and writing instructional programs was, and continues to be, profound and persistent, despite the fact that it has been substantially refuted by a significant number of twentieth century researchers, including Senden (11), Riesen (10), Hebb (6), Gregory (5) and Frostig and Home (4). Piaget, among a whole host of developmentalists, tells us that children learn through the construction of internally integrated hierarchies of categorically related matter, those evolved through active and ongoing interplay between that which is external and that which has already been learned and internalized. Expecting immature children to develop the capacity to internalize complex, atypical and structurally erratic letter sequences standing for semantically obscure abstract ideas, without encountering significant difficulty during the relatively brief period when such words are supposedly being committed to memory, is the height of instructional folly. Such symbolic activity can only occur when an already well-established system for observing, storing and reproducing word sequences composed of identifiable and consistently regular sound to symbol elements is well established and functioning. The application of such structurally illogical instructional procedures lays the groundwork for most, if not all, of the later illogic observable in otherwise normal, but poor reading and writing, children and adults, as they are constantly frustrated in their efforts to decode and encode their own language. The association of reading and writing errors and their various manifestations, with persistent frustration produced anxiety, has been discussed elsewhere in detail. (7)

In addition to the confusion that exists concerning the learner's need, first, to perceive individual letter elements as unique structures having an existence of their own, and, second, to perceive that there is a vowel-consonant hierarchy extant within the overall body of the twenty six

letter English alphabet, a number of other misconceptions exist regarding the great complexity of the transfer involved when speech is translated into print.

The two media involved in the transfer —speech and print—operate through the aegis of totally different internal neural and related sensory-motor networks. The rules of transfer are, as a result, governed by the internal-external requirements dictated by the different receptive-expressive modalities involved. In addition, the two media used to externalize the results of these internal symbolic networks can in no manner be considered to be related, except by virtue of the fact that speech and print can be used, in some unfathomable way, to represent abstract ideas which have come to “stand for” the objects or ideas associated with them as externalized aspects of reality in the form of spoken and printed words.

During the early stages of the transitional period, as the child learns to transform oral into print symbols, the graphic medium requires that a number of subtle changes in processing take place. It requires the application of a different, and far more complex set of strategies, if the transfer and resulting interchange is to occur effortlessly and accurately, with clear internal associations being formed at the neural level of function.

Most significantly, there is virtually no margin for error within the translational framework. Earlier, during the period of speech growth, the child was able to express imprecise sound sequences having little common with the exact name used to refer to specific concrete objects, such as that produced when the infant uttered the sounds “bah-bah.” Initially, such an incomplete expression of infantile need was rewarded immediately by a bottle containing milk or some other fluid, an act of conditioning that played a significant role in the gradual development of ever more complex speech. However, such short cuts will not suffice on the written level. Milk will not be immediately forthcoming if the writer simply places the print representatives for the sounds “bah-bah” on paper. Nor will it result if the inaccuracies represented by such misspellings as *botil*, *boddal*, *dottet*, or any other of a literal infinity of similar inaccuracies for the desired object “bottle.” In point of fact, even the single word “bottle” represented accurately will not result necessarily in achieving the desired end of sustenance in the form of milk. At some point in development, the single word must be placed within a larger semantic and grammatic context, else the reader presume the wrong meaning, as in: “Can I have a bottle for use in holding water-paint-whiskey, etc.?” or “Is this object a bottle?” or “Where is the bottle?”, or any of another infinity of possible contexts. Requests for specific desired ends must be placed within the parameters of the very specific grammatic and syntactic form used by readers and writers of the language, or confusion reigns.

Considerable latitude also exists on the oral level in the presentation of partial sound configurations, since speech requires that a listener be present when it is uttered. Speech can be accompanied by clues given at both the conscious and unconscious levels in the form of gestures, posture, facial expression, tone, amplitude, etc. No such latitude exists in writing. For example, a child’s utterance of the partial sound associated with the letters “ca,” from a totality “cat,” will usually be interpreted by parents to “stand for” the object cat present in the household, especially when it is accompanied simultaneously by a pointing motion in the general direction of the family pet. Such is not the case for such a sound sequence when it is represented in graphic form. The printed sequence of letters c-a are meaningless in English, and if a final consonant or consonants are to be intuited, a number of other possibilities immediately present themselves, including *cab*, *cap*, *can*, *catch*, etc. On the written level, the specific sequence of letters standing for the idea represented by the letters c-a-t must be represented exactly, and they must be contained within a

specific grammatic and semantic context if precise meanings are to be understood, as in: “Is that a cat?” or “Can I pet the cat?” or “Where is the cat?”

Consider also the difference in the environmental situation present when a small child learns to associate the idea represented by the individual graphic letter sequence c-a-t, from that which prevailed when that same child was learning to associate the oral sequence for the same idea with the sounds representing the spoken word for “cat.” That earlier experience was a felt, sensory-motor one, as the child connected the idea of catness with the object being handled-heard-seen-smelled-tasted, simultaneous with a trio of acoustic-phonetic vibrations entering the ear, as nearby mouths gently uttered the word for cat, over and over.

Making the associative transfer at the print level, however, requires the construction of a far more complex internal neural network of associations, since the idea represented abstractly by the printed word cat must be connected with its pronounced predecessor *in the total absence of a direct sensory relational component acting to stimulate the formation of a related network of secure and immediate retrievable internal neural interconnections*. As a result, the immature child must develop an understanding that a particular combination of line and curve segments, represented externally by the alphabetic symbols c-a-t, one bearing no direct concrete sensory resemblance to the object “cat,” does in fact have a symbolic meaning which is integrally related to a sequence of sounds associated initially as being representative of the object referred to at that time as “cat.”

Those who study symbolic development in the child know that many children entering school are not perceptually or conceptually prepared for such a totally abstract meaning transfer and should not be exposed to the printed word until such a state of readiness is demonstrably present. They are simply not able, at that point in time, to understand the rationale underlying such a significant transfer, a matter, not of innate intelligence *per se*, but rather one solely dependent upon the separately evolving forces of sensory-motor, perceptual and conceptual awareness.

When one remembers that as a species, man only learned how to place the product of his thought on paper a mere few thousands of years ago, despite the presence of a capacity to represent internalized thought in the form of indirectly representative oral symbols, and prior to or simultaneous with that capacity, to represent them in the form of directly representative pictographic symbols, for an additional number of thousands of years earlier, the expectation of significant learning problems should be a psychological given during the initial exposure period. Neither should all manifestations of difficulty in learning to deal with printed symbols be perceived *de facto* as necessarily indicating the presence of some form of cerebral dysfunction.

Another area of confusion existing in our understanding of the difficulty involved in speech to print transfers involves the role of sequence. In order to even begin the task of committing the external alphabetic symbols comprising the word *cat*, into internalized symbolic form for memory storage and retrieval, the viewer must have an understanding of the role of visual sequence in these complex processes. What seems simple and immediate for the mature adult, is not simple or immediate, a fact attested to by the pioneer work of Senden and Riesen in initial visual perception, and later supported by the neuropsychological work of Hebb and the developmental child studies of Piaget. The normal child, upon entry into school, has already developed a facile ability to view concrete reality visually and make the complex spatial readjustments required to bring what is actually viewed externally as mirrored images of reality, into conformity with what is felt at the direct tactual-kinesthetic level of sensation, and in turn readily associate spoken names with what has been thus viewed. Such a transposition is made possible by virtue of the fact that all such objects tactually perceived in reality directly have three dimensions, an

attribute which permits the child to coordinate the confusion and contradictory evidence entering his visual field with that which is being sensed and perceived simultaneously by his more reliable hands, a fact which Freud pointed out nearly one hundred years ago. (3) The child has learned that a drinking cup with a handle retains its “cupness” despite its position in space, be it upside down or right side up, be its handle facing to the right or the left side. His ability to associate the idea “cup” with the object allows him to reach for it unerringly and grasp it by the handle when preferred.

In time, the child learns easily to associate “cupness” indirectly with a consistently perceived sound sequence accompanying experiences connected with cups in the form of the word for the object, “cup.” Such is not the case when the written word for cup is presented in its printed form. The experience is far more complex. Letters are two dimensional figures, with considerable ambiguity present as spatial relationships change. The printed word *cup* can be perceived variously as puc-cud-cub-cuq-cpu-ucq-etc., by the immature child who has not developed absolute and facile perceptual ability in always observing the letters involved in specific settings in the same artificial and arbitrary spatial and sequential sequence ordained by the prerequisites of correct decoding and encoding. The alphabet is replete with individual letters possessing this capacity for ambiguous interpretation: d-p-b-q, s-z, m-w, n-u, f-t, h-y. This ambiguity extends equally to the sounds associated with these alphabetic symbols, as is in the consonants *s* (soon, his, she), *c* (cent, cat, chat), *g* (gun, gem, rough), *f* (for, of), *th* (thumb, that); and in the vowels *a* (about, cat, caught car, mare), *e* (pet, seed, eight, field, break), etc.

For successful word processing, the viewer must always activate the same repeating sequence of viewing movements used when observing letters both individually and in sequence. Reversals, rotations, and mirrorings are not permissible. Any error at this basic associational juncture can result in vastly differing meanings accompanying retrieval. The child must learn to process extremely complex geometric figures in precise sequence and position in space, even when viewing the simplest word forms, as in *cat* or *spot*, lest a confused sequence be transmitted for processing, as in cta-tac-act-act or pots-stop-opts-tops-otps. The child must also understand early on in his development that the same visual sequence may be represented in various external forms, even when viewed in the proper sequence, as in CAT, Cat, cat, but not CaT or cAT. He must also learn to differentiate in subtle ways when observing the same letters presented in differing graphic environments. The “Mr. Cat” in his early story books is not to stand for the object “cat,” but rather represents a surname for an animal personified in the story for literary purposes.

The letters c-a-t when followed by the additional letters s-u-p on a bottle of red material indicate something edible, but the same letters followed by the letters n-i-p are not edible. In time, the child must learn that the word *cat*, when appended to the word like, refers not to the object “cat,” but rather to complex attributes associated at a very sophisticated level of abstraction to activities or movements of the animal bearing the name “cat.” He must also learn the same three letters can be used in a whole range of contexts which have very indirect relationships with the original idea associated with “catness,” as in *cat fight*, *cat litter* and *cat burglar*.

A cursory examination of even a few of the complexities involved in the simplest attempts of the immature child to commit relatively stable letter sequences to memory for immediate, facile and accurate retrieval, permits a better receptivity for understanding the potential for extreme and persistent confusion with resulting anxiety whenever a child is expected to learn how to recognize and spell the abstractions appearing from the outset in most children’s readers, words such as *was*, *were*, *once*, *look*, *there*, *am*, *who*, etc. Virtually the entire body of significant word forms naively referred to as “sight words,” and long considered as the essential prerequisites for mean-

ingful reading and writing from the outset of instruction, are composed of atypical sequences of sound to symbol transfer. Perhaps even more significantly, they are words which literally have no concreteness of meaning, serving instead as abstract signallers of grammatic function involving case, tense, number, person, gender, position, etc.

Based upon what is now known about language acquisition, it should be clear that the preeminent skill required for the development of secure reading and writing ability in the child about to embark on the significant task of learning how to receive and express his own language in its print symbolic form, is facility with the individual elements of the twenty six letter English alphabet. All subsequent activity with printed language is absolutely dependent upon this initial ability to establish unfailing and unambiguous mastery of these individual building blocks. Once such mastery is achieved, the door is opened for the systematic internalization of the meanings which flow from language usage at either or both the conscious and unconscious levels of human symbolic functioning. The learner is prepared to extend an initial hierarchic vowel-consonant awareness to the entire body of printed and spoken language extant, as the two media become increasingly interwoven.

The task of categorizing the entire English language within a system of quantifiable categories of structure has already been undertaken. A system of vowel classification permitting every word possible of construction in English to be incorporated within the parameters of definable subcategories has been already completed, with fifty thousand words already classified into thirty separate vowel categories at five successively more complex levels of difficulty. (8, 9)

The time to cease persuasively examining and reexamining the relatively limited number of orthographically anomalous word forms present in English spelling and concentrate instead on the overwhelming bulk of the system which is regular and consistent, is at hand. The fate of future generations depends upon how rapidly such an expenditure of our limited human resources can be turned to the task of achieving full literacy for all.

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Note from Internet Publisher: Donald L. Potter

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A couple years ago, I started publishing some of Raymond Laurita's essays. I had read his books, *Reading, Writing, and Creativity* and *Orthographic Structuralism: The New Spelling* several years ago. Both books had a major impact on my thinking about the teaching of reading and my classroom teaching practices. This essay was first published on my website on July 20, 2005, in jpg format.

It is amazing to witness how well children learn to read when they have a firm grasp of the alphabet. I have often found, to my utter amazement, that students with dyslexia most often had **failed** to acquire accurate recognition skills all the letters of the alphabet **before** teachers attempted to teach them to read. I am publishing this essay in hopes of encouraging the teachers of young children to help the students acquire a firm grasp of the alphabet *BEFORE* attempting to introduce the children to print literacy.

I would like to express my deep appreciation to Raymond Laurita for his impact on my understanding of English orthography and the best methods for developing literacy and avoiding (and curing) dyslexia. I am especially appreciative of his permission to publish these essays on the Education Page of my website: www.donpotter.net. Also visit www.blendphonics.org.

Essays by Mr. Laurita available on my website:

1. A Critical Examination of the Psychology of the Whole Word Method
2. Basic Sight Vocabulary: A Help or A Hindrance
3. Frustration and Reading Problems
4. Spelling as a Categorical Act
5. A Plea to Restore Reading as a Spoken Activity
6. Vertical Word Processing: A New Approach for Teaching Written Language to The Learning Disabled Adolescent. Phillip W. Trembley. MA.
7. Reversals: a response to frustrations?
8. Understanding the Significance of the Individual Letters of the Alphabet in the Development of Full Literacy.
9. Rehearsal: A Technique for Improving Reading Comprehension. (Teaching Teenagers)

Permit me to lift two brief passages out of this essay which get to the **heart** of the matter:

The **absolute need to develop** clear and consistent facility with the individual components of the alphabet **before** children are exposed to more complex sequences of these letters during initial instruction in reading and writing, has been inadequately dealt with; even trivialized, by those responsible for the instruction of immature infants.

and

Those who develop the ability, from the **outset** of exposure to printed language, to perceive the structural principles governing the increasingly sophisticated combinations possible of construction from these individual letter components, are those who learn to decode and encode with joy and facility. Those whose development is **disrupted during this crucial period of perceptual growth**, for any of a myriad of underlying causations, **are those who may display the effects of such interruption for a lifetime.**

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